

**EPA Superfund  
Record of Decision:**

**AMERICAN CREOSOTE WORKS, INC. (JACKSON  
PLANT)  
EPA ID: TND007018799  
OU 01  
JACKSON, TN  
01/05/1989**

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT (TDHE) INSTALLED FOUR SHALLOW GROUNDWATER MONITOR WELLS AROUND THE PROPERTY LINE.

- \* DECEMBER 1981: NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEMS (NPDES) PERMIT #TN0001904 ISSUED. ACW FACILITY CEASED OPERATION.
- \* JUNE 1982: TDHE SAMPLED THE SITE. HIGH CONCENTRATION OF PCP AND CREOSOTE WERE PRESENT.
- \* MARCH 1983: LAGOONS AT THE SITE OVERFLOWED.
- \* MAY 1983: SAMPLING AT THE ACW SITE BY THE EPA ENVIRONMENTAL SERVICES DIVISION (ESD) PERSONNEL INDICATED THE SLUDGE, SURFACE SOILS, LAGOON WATERS AND SHALLOW GROUNDWATER SOUTH AND SOUTHEAST OF THE LAGOONS WERE CONTAMINATED WITH ORGANIC COMPOUNDS ASSOCIATED WITH WOOD PRESERVING USING CREOSOTE AND PCP. THE EPA WAS AUTHORIZED TO REMOVE HAZARDOUS WASTES AT THE SITE. FROM JUNE 4 TO JUNE 22, 1983, APPROXIMATELY 30,000,000 GALLONS OF WATER WERE PUMPED FROM THE SITE TO THE SOUTH FORK FORKED DEER RIVER. DAILY SAMPLES TAKEN BY EPA DID NOT EXCEED THE PCP CONCENTRATION OF 100 PARTS PER BILLION (PPB) DISCHARGE CRITERIA SET BY THE TENNESSEE DIVISION OF WATER QUALITY. TREATABLE PORTIONS OF THE LAGOON WATERS WERE TREATED BY FILTRATION AND CARBON ABSORPTION PRIOR TO DISCHARGE. THE INTRATUBAL PORTION OF MATERIAL IN THE LAGOONS WAS STABILIZED WITH LIME KILN DUST IN LAGOONS 1 AND 3, AND COVERED WITH A CLAY CAP.
- \* JUNE 1984: EPA INSPECTED THE SITE.
- \* FEBRUARY 1985: REPAIR WORK WAS AUTHORIZED AT THE SITE TO MITIGATE EFFECTS OF LEAKING TANKS.
- \* NOVEMBER 1985: ANALYTICAL DATA FROM SEVERAL OLD ARTESIAN WELLS INDICATED RESULTS FOR THE ACID-EXTRACTABLE ORGANICS BELOW DETECTION LIMITS OF 0.01 MG/L (10 PPB).
- \* MAY 1986: PLANS FOR THE REMEDIAL INVESTIGATION BEGAN BETWEEN THE CORPS OF ENGINEERS AND EPA.
- \* JANUARY 1987: CORPS AND EPA BEGAN FIELD WORK FOR THE RI/FS.

#EH

## II. B. ENFORCEMENT HISTORY

IN DECEMBER 1981, AMERICAN CREOSOTE WORKS TENNESSEE, INC., IN JACKSON, TENNESSEE RECEIVED ITS NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEMS (NPDES) PERMIT #TN0001904; HOWEVER, SHORTLY THEREAFTER, THE FACILITY CEASED OPERATION. ON MAY 21, 1982, ACW FILED FOR CHAPTER 11 BANKRUPTCY.

IN JUNE 1983, EPA APPROVED \$860,000.00 IN CERCLA EMERGENCY FUNDS TO DEWATER THE SITE, REMOVE AND BURY SLUDGE, AND CAP CERTAIN AREAS WITH CLAY. ON JUNE 1 1983, THE TECHNICAL ASSISTANCE TEAM (TAT) TOOK SAMPLES AT THE SITE. ON JUNE 3, 1983, THE GULF STRIKE TEAM PUMPED WATER FROM THE SITE TO THE FORKED DEER RIVER. EPA CONSOLIDATED THE SLUDGE INTO A CONTROL AREA AND CAPPED THE AREA WITH CLAY. ALL ONSITE OPERATIONS WERE COMPLETED BY AUGUST 13, 1983. COSTS FOR THE ABOVE DESCRIBED ACTIVITIES TOTALLED \$735,399.61. IN OCTOBER 1984, THE SITE WAS PLACED IN GROUP IX OF THE NATIONAL PRIORITIES LIST. ON SEPTEMBER 19, 1985, EPA APPROVED AN ACTION MEMORANDUM FOR A REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI/FS) OF THE SITE IN THE AMOUNT OF \$306,000.00

AND THRU 1986 THAT COST INCREASED TO \$800,000.00.

ON JULY 25, 1983, EPA FILED A PROOF OF CLAIM FOR \$3,500,000.00 IN THE CHAPTER 11 BANKRUPTCY PROCEEDING. DUE TO ACW'S LACK OF ADHERENCE TO THE COURTS PROCEDURES, ON APRIL 20, 1988, THE US BANKRUPTCY COURT FOR THE NORTHERN DISTRICT OF FLORIDA PENSACOLA DIVISION, DISMISSED ACW'S CASE. BASED UPON THIS FACT AND THE FACT THAT THE TENNESSEE SECRETARY OF STATE REVOKED ACW'S CHARTER OF INCORPORATION ON APRIL 9 1985, ACW IS NO LONGER IN BUSINESS AND IS NOT A VIABLE PARTY FOR COST RECOVERY PURPOSES.

#### **#CRH**

### **III. COMMUNITY RELATIONS HISTORY**

COMMUNITY RELATIONS ACTIVITIES AT THE AMERICAN CREOSOTE WORKS SITE HAVE BEEN HANDLED WITH DIRECT INVOLVEMENT FROM THE US EPA AND TDHE. THE INITIAL CONTACT WITH THE PUBLIC TOOK PLACE IN JACKSON, TENNESSEE IN 1982. IT WAS IN THE FORM OF INTERVIEWS WITH REPRESENTATIVES OF THE CITY OF JACKSON WITH RESPECT TO THE UPCOMING SUPERFUND REMOVAL ACTION OF JUNE 1983. TWO PUBLIC MEETINGS WERE HELD IN DECEMBER 1986 PRIOR TO INITIATING RI/FS FIELD ACTIVITIES. THE SECOND MEETING WAS HELD ON AUGUST 29, 1988 TO DISCLOSE THE RESULTS OF THE RI/FS TO THE JACKSON COMMUNITY. THE REMEDIAL ALTERNATIVES FROM THE FS WERE DISCUSSED AS WELL AS EPA'S PROPOSED PLAN TO ADDRESS SITE CONTAMINATION.

PUBLIC INVOLVEMENT AND PARTICIPATION REGARDING THE SITE HAVE BEEN LIMITED. REPRESENTATIVES OF THE CITY OF JACKSON HAVE ASKED FOR GREATER INVOLVEMENT IN RESPONSE PLANNING AND IMPLEMENTATION. THERE IS CONCERN REGARDING THE POTENTIAL IMPACT IN THE JACKSON WELL FIELD LOCATED 1-2 MILES NORTHEAST OF THE SITE, AND THE SEWER INTERCEPTOR LINE LOCATED NEAR THE SOUTHERN EDGE OF THE SITE. ALSO THERE IS A STRONG INTEREST FROM THESE LOCAL BODIES TO FACILITATE DEVELOPMENT OF THE SITE AND THE SURROUNDING AREA (SEE RESPONSIVENESS SUMMARY FOR FURTHER DISCUSSION.)

#### **#SROSS**

### **IV. SCOPE AND ROLE OF OPERABLE UNIT WITHIN SITE STRATEGY**

THE REMEDIAL INVESTIGATION IDENTIFIED GENERAL AREAS OF CONTAMINATION BUT WAS NOT OF SUFFICIENT SCOPE TO THOROUGHLY DEFINE THE EXTENT OF THE CONTAMINATION IN SOIL, GROUNDWATER OR SURFACE WATER. THE FS IDENTIFIED THESE THREE AS THE PRINCIPAL THREATS POSED BY THE SITE BUT DATA GAPS ARE SIGNIFICANT ENOUGH THAT A FINAL REMEDY CANNOT BE SELECTED WITHOUT ADDITIONAL STUDY. AS A RESULT, THIS OPERABLE UNIT WILL REDUCE THE POTENTIAL FOR DIRECT EXPOSURE TO SURFACE CONTAMINATION RESULTING FROM DEGRADATION OF THE TANKS AND SITE STRUCTURES AND MINIMIZE POTENTIAL FOR INCREASED SPREAD OF CONTAMINATION DUE TO FLOODING WHILE ADDITIONAL INFORMATION IS DEVELOPED AND ANALYZED. THIS ACTION WILL DISPOSE OF PROCESS LIQUIDS AND SLUDGES (ESTIMATED 500,000 GALLONS CONTAMINATED WATER, 25,000 GALLONS OIL AND 115,000 GALLONS SLUDGE) CURRENTLY IN ON-SITE CONTAINERS, DEMOLISH AND DISPOSE OF THE PROCESS BUILDINGS AND STORAGE TANKS, ISOLATE THE SITE WITH FENCING AND CONSTRUCT FLOOD CONTROL. IMPLEMENTATION OF THIS PHASED APPROACH WILL MINIMIZE THE HIGHEST RISK OF HUMAN OR ENVIRONMENTAL EXPOSURE THROUGH USE OF PROVED TECHNOLOGIES IN A MANNER CONSISTENT WITH A PERMANENT REMEDY.

#### **#SSCR**

### **V. SUMMARY OF SITE CHARACTERISTICS AND RISKS**

THE WOOD PRESERVING OPERATION AT THE SITE USED BOTH CREOSOTE AND PENTACHLOROPHENOL WASTEWATER SLUDGES FROM THE CREOSOTE AND PCP TREATMENT OF WOOD PRODUCTS ARE LISTED AS K001 WASTES UNDER RCRA. THE PLANT PROCESS FACILITIES ARE CONSIDERED A POINT SOURCE OF CONTAMINANTS. THESE

STRUCTURES INCLUDE THE TREATMENT BUILDING, PRESSURE CYLINDERS, BOILER ROOM TANKS, OIL STORAGE TANKS, TANK CARS, PIPING VACUUM POND, SAND FILTERS (AND OTHER WATER TREATMENT FACILITIES) AND ASSOCIATED PIPES, APPURTENANCES AND STORAGE BUILDINGS. LEAKAGE FROM THESE STRUCTURES AND ADJACENT PITS ARE CAUSING A CONSTANT DISCHARGE OF CONTAMINANTS. SEVERAL OF THE TANKS AND PIPES ARE STRUCTURALLY UNSOUND, POSING THE THREAT OF SUDDEN, MAJOR RELEASE OF CONTAMINANTS. IN ADDITION, MANY OF THE TANKS ARE OPEN-TOPPED, ALLOWING ENTRY OF PRECIPITATION WHICH INCREASES THE VOLUME OF CONTAMINATED LIQUIDS AND ADDS TO THE THREAT OF RELEASE. SURFACE WATER COLLECTING BEHIND THE FACILITY DIKES FROM UPGRADIENT POSES A FLOODING HAZARD WHICH MAY SPREAD CONTAMINATION BOTH ON AND OFF-SITE.

THE RI IDENTIFIED SEVERAL CLASSES OF COMPOUNDS OF CONCERN AT THE ACW SITE. THESE WERE VOLATILE ORGANIC COMPOUNDS, POLYNUCLEAR AROMATIC HYDROCARBONS, AND PHENOLIC COMPOUNDS. THE MAXIMUM CONCENTRATIONS OF PAH'S AND PHENOLICS AT THE SITE ARE:

LOCATION -----	PAH'S -----	PHENOLICS -----
TANKS	340,000 PPM	19,000 PPM
PITS	105,000 PPM	5,800 PPM
SOILS	11,530 PPM	1,700 PPM

IN THE BASELINE RISK ASSESSMENT, INDICATOR CHEMICALS WERE CHOSEN ACCORDING TO THE SUPERFUND PUBLIC HEALTH EVALUATION MANUAL. THIS PROCESS AIDS IN THE IDENTIFICATION OF CHEMICALS WHICH ARE BELIEVED TO REPRESENT THE MOST TOXIC AND CARCINOGENIC MEMBERS OF EACH CLASS OF CHEMICALS. THE INDICATOR CHEMICALS AND THE CLASS OF COMPOUNDS EACH REPRESENTS ARE:

- BENZO (A) PYRENE AND BENZ(A) ANTHRACENE - POLYNUCLEAR AROMATIC HYDROCARBONS
- TETRACHLOROPHENOL - PHENOLIC COMPOUNDS

BENZO(A)PYRENE AND BENZ(A)ANTHRACENE WERE DETECTED IN HIGH CONCENTRATIONS IN SOILS AND IN TANK WASTES. IN TANKS CONTAINING CREOSOTE, CONCENTRATIONS OF THESE CONTAMINANTS EXCEEDED 1000 PPM. TETRACHLOROPHENOL WAS DETECTED IN A SINGLE NEAR SURFACE SOIL SAMPLE AND IN TWO OF THE THREE GROUND WATER SAMPLES. BENZ(A)ANTHRACENE IS A SUSPECTED HUMAN CARCINOGEN. TETRACHLOROPHENOL IS NOT KNOWN TO BE CARCINOGENIC TO HUMANS OR ANIMALS.

THE BASELINE RISK ASSESSMENT IDENTIFIED DIRECT CONTACT WITH CONTAMINATED OILS AND INHALATION OF CONTAMINATED DUST AS PRIMARY ROUTES OF EXPOSURE. LONG-TERM OR SUDDEN RELEASE OF CONTAMINATED LIQUIDS AND SLUDGES FROM ON-SITE STRUCTURES WILL INCREASE SOIL CONTAMINATION AND POSES THE RISK OF SURFACE WATER AND GROUNDWATER CONTAMINATION.

## VI. DOCUMENTATION OF SIGNIFICANT CHANGES

CERCLA SECTION 117(B) REQUIRES THAT THIS REMEDIAL ACTION PLAN BE:

- (A) ACCOMPANIED BY A DISCUSSION OF ANY SIGNIFICANT CHANGES (AND THE REASONS FOR SUCH CHANGES) IN THE PROPOSED PLAN AND A RESPONSE TO EACH OF THE SIGNIFICANT COMMENTS, CRITICISMS AND NEW DATA SUBMITTED (ON THE RI/FS REPORT AND THE PROPOSED PLAN.)

EPA DID NOT RECEIVE ANY NEW OR ADDITIONAL INFORMATION FROM THE PUBLIC HEARING OR PUBLIC COMMENT PERIOD. THERE WERE NO SIGNIFICANT COMMENTS, CRITICISMS RECEIVED AFTER THE AUGUST 29, 1988 PUBLIC HEARING AND BEFORE COMPILATION OF THIS ROD. HOWEVER, THE SELECTED ALTERNATIVE DESCRIBED BELOW CONTAINS SIGNIFICANT CHANGES FROM THE PROPOSED PLAN AND THESE CHANGES AFFECT THE SCOPE, PERFORMANCE, AND COST OF THE SELECTED REMEDY. THESE SIGNIFICANT CHANGES ARE A LOGICAL OUTGROWTH OF THE INFORMATION AND ANALYSIS PRESENTED TO THE PUBLIC AND COULD HAVE BEEN REASONABLY

ANTICIPATED BY THE PUBLIC.

THE SELECTED ALTERNATIVE WILL BE DESCRIBED IN GREATER DEPTH BELOW. THIS SECTION WILL BRIEFLY DESCRIBE THE DIFFERENCES BETWEEN THE PROPOSED PLAN PRESENTED TO THE PUBLIC ON AUGUST 29, 1988 AND THE SELECTED ALTERNATIVE HEREIN.

FROM THE FS ALTERNATIVES EVALUATION, EPA SELECTED THE FOLLOWING COMPONENTS AS THE PROPOSED PLAN OR PREFERRED REMEDIATION AT THE PUBLIC HEARING:

- \* GROUNDWATER MONITORING
- \* DEED RESTRICTIONS LIMITING FURTHER USE OF THE SITE
- \* CONSTRUCTION OF FLOOD PROTECTION DIKE AROUND THE SITE
- \* INSTALLATION OF A CONTAINMENT BARRIER AROUND THE NON-AQUEOUS PHASE LIQUIDS (NAPL) PLUME OF CREOSOTE AND PENTACHLOROPHENOL
- \* GROUNDWATER EXTRACTION AND TREATMENT OF THE SUBSURFACE CONTAMINATION TO INCLUDE SOLUBLE ORGANICS
- \* SOLIDIFICATION OF SURFACE SOILS IN PLACE, OR THROUGH EXCAVATION SOLIDIFICATION AND REPLACEMENT OF SOILS ON-SITE WHICH INCLUDES REMEDIATION OF TANK SLUDGES
- \* STREAM SEDIMENT REMEDIATION
- \* INSTALLATION OF SECURITY FENCING AROUND THE SITE

THE SELECTED REMEDIAL ACTION OPERABLE UNIT IS A SUBSET OF THE PROPOSED PLAN AND INCLUDES:

- \* DEED RESTRICTIONS LIMITING FURTHER USE OF THE SITE
- \* CONSTRUCTION OF FLOOD PROTECTION DIKE AROUND THE SITE AND SITE STABILIZATION
- \* REMOVAL AND DISPOSAL OF TANKED LIQUIDS AND SLUDGES
- \* REMOVAL AND DISPOSAL OF SITE STRUCTURES
- \* INSTALLATION OF SECURITY FENCING AROUND THE SITE

AS SUBMITTED THESE CHANGES ARE SIGNIFICANT AS DETERMINED UNDER CERCLA SECTION 117(B). THE CHANGES COULD BE REASONABLY ANTICIPATED BY THE PUBLIC BECAUSE IT WAS EMPHASIZED IN THE RI/FS AND AT THE PUBLIC HEARING THAT THERE WERE DATA GAPS CONCERNING GROUNDWATER, SOILS AND STREAM SEDIMENTS AND ALSO THAT BOTH THE GROUNDWATER EXTRACTION TREATMENT TECHNOLOGY AND THE PRACTICABILITY OF INSTALLING A CONTAINMENT BARRIER WERE UNCERTAIN. THE EPA ALSO STATED AT THE PUBLIC HEARING THAT THIS UNCERTAINTY COULD BE DEALT WITH DURING THE REMEDIAL DESIGN PHASE. AFTER THE PUBLIC HEARING AND FURTHER CONSIDERATION, THE EPA MANAGEMENT AND PROJECT TEAM DECIDED THAT THE MOST ADVISABLE AND APPROPRIATE COURSE OF ACTION WOULD BE TO IMPLEMENT THE OPERABLE UNIT CLEAN UP MEASURE ONLY AND ADDRESS THE GROUNDWATER, SOIL AND STREAM SEDIMENT QUESTIONS IN A SUBSEQUENT ROD. A CITIZEN WOULD BE ABLE TO ANTICIPATE THIS CHANGE IN SCOPE BECAUSE OF THE ADDITIONAL DATA GATHERING AND TECHNICAL DIFFICULTIES ASSOCIATED WITH GROUNDWATER EXTRACTION UNDERSCORED AT THE AUGUST 29, 1988 PUBLIC HEARING. THIS OPERABLE UNIT IS A LOGICAL SUBSET OF THE PROPOSED PLAN.

**#TSR**

#### **VII. THE SELECTED REMEDY**

THIS OPERABLE UNIT WILL INITIATE ACTION AT THE SITE WHILE ADDITIONAL INFORMATION IS DEVELOPED AND EVALUATED. THE SELECTED REMEDY INCLUDES:

- \* DEED RESTRICTIONS LIMITING FURTHER USE OF THE SITE
- \* CONSTRUCTION OF FLOOD PROTECTION DIKE AROUND THE SITE AND SITE STABILIZATION
- \* REMOVAL AND DISPOSAL OF TANKED LIQUIDS AND SLUDGES
- \* REMOVAL AND DISPOSAL OF SITE STRUCTURES

\* INSTALLATION OF SECURITY FENCING AROUND THE SITE

THIS OPERABLE UNIT INCLUDES: TREATMENT OF THE WATER CONTAINED IN THE TANKS; INCINERATION OF THE OILS AND SLUDGES FROM THE TANKS; DECONTAMINATION, DEMOLITION AND DISPOSAL OF THE TANKS; AND, CONSOLIDATION AND INCINERATION OF SLUDGES (SPILLED OR LEAKED) IN THE IMMEDIATE VICINITY OF THE BUILDINGS AND TANKS. WATER FROM THE TANKS WILL BE TREATED ON-SITE UTILIZING A SAND FILTER, FILTER PRESS AND CARBON ADSORPTION UNIT. TREATED WATER WILL BE ANALYZED TO DOCUMENT TREATMENT EFFICIENCY AND DISCHARGED TO THE SOUTH FORK FORKED DEER RIVER OR CENTRAL CREEK. THE OIL AND SLUDGES FROM THE SITE WILL BE INCINERATED OFF-SITE AT A FIXED FACILITY OR ON-SITE IN A MOBILE INCINERATOR IN AN OFF-SITE FACILITY IS UNABLE TO DISPOSE OF THE WASTE. THE SITE STRUCTURES (BUILDINGS, TANKS, PIPES) WILL BE DECONTAMINATED AND DISPOSED OFF-SITE AT A SUBTITLE D FACILITY TO BE SELECTED IN CONSULTATION WITH THE TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT. UNCONTAMINATED OR DECONTAMINATED SALVAGEABLE MATERIALS WILL BE SOLD IF POSSIBLE TO A SCARP DEALER OR RECYCLER.

PHASE II OF THIS REMEDIATION IS INTENDED TO REMEDIATE MORE AREAS OF THE SITE BY CONSTRUCTING A FENCE AROUND THE SITE BOUNDARY TO DETER ACCESS TO CASUAL VISITORS AND CONSTRUCT FLOOD-PROTECTION DIKING. THIS OPTION MAY BE IMPLEMENTED CONCURRENT WITH OR SUBSEQUENT TO PHASE I. REMOVAL OF NON-PROCESS AREA STRUCTURES AND OTHER INCIDENTAL CONSTRUCTION IS NOT PLANNED DURING EITHER PHASE, BUT WILL BE ADDRESSED AS PART OF THE FINAL REMEDY. SITE STABILIZATION PENDING A FINAL REMEDY WILL INCLUDE MONITORING WATER LEVELS ON-SITE BEHIND THE DIKES AND PUMPING, TREATMENT (AS NEEDED) AND DISCHARGE OF IMPOUNDED WATER.

REMEDICATION OF THE SURFACE SOILS IS NOT PLANNED DURING EITHER PHASE SINCE BENCH OR PILOT-SCALE TESTING IS NEEDED TO VERIFY THAT THE TECHNOLOGIES DISCUSSED IN THE FS REPORT ARE APPLICABLE TO SITE CONDITIONS.

#SD

**VIII. STATUTORY DETERMINATIONS**

THE US EPA AND TDHE BELIEVE THAT THIS REMEDY WILL SATISFY THE STATUTORY REQUIREMENTS OF PROVIDING PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT, ATTAINING APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS OF OTHER ENVIRONMENTAL STATUTES, WILL BE COST-EFFECTIVE, AND WILL UTILIZE PERMANENT SOLUTIONS AND ALTERNATIVES TREATMENT TECHNOLOGIES OR RESOURCE RECOVERY TECHNOLOGIES TO THE MAXIMUM EXTENT PRACTICABLE.

#PHH

**IX. PROTECTION OF HUMAN HEALTH**

THE SELECTED REMEDY PROVIDES ADEQUATE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT OF ELIMINATING THE DIRECT EXPOSURE THREAT THROUGH DERMAL CONTACT WITH SURFACE SOILS AND TANK SLUDGES

THERE ARE NO UNACCEPTABLE SHORT-TERM RISKS OR CROSS-MEDIA IMPACTS ANTICIPATED BY IMPLEMENTATION OF THE OPERABLE UNIT.

IMPLEMENTATION OF THIS ALTERNATIVE WOULD REMOVE TANKED SLUDGES AND PROCESS LIQUIDS, AND THE PROCESS BUILDINGS WHICH ARE A POTENTIAL MAJOR CONTAMINATION SOURCE. FENCING THE SITE WOULD ISOLATE THE CASUAL VISITOR FROM THE NEAR SURFACE CONTAMINATION AND LIMIT THE THREAT OF DERMAL CONTACT AND INGESTION. IMPLEMENTATION OF THIS ALTERNATIVE WOULD ALSO REMEDIATE FUTURE ENVIRONMENTAL EFFECTS THAT MAY OCCUR AS A RESULT OF A MAJOR RELEASE FROM THE TANKS, BUT WOULD NOT ADDRESS ENVIRONMENTAL HARM THAT MAY BE OCCURRING AS A RESULT OF EXISTING CONTAMINATION IN

THE SURFACE STREAMS. ADDITIONALLY, SINCE THIS ALTERNATIVE DOES NOT ADDRESS GROUNDWATER CONTAMINATION BY THE AQUEOUS OR NAPL PLUME, IT HAS NO IMPACT ON CONTINUED OFF-SITE CONTAMINANT MIGRATION VIA THE GROUNDWATER ROUTE.

#### **#AA**

##### **X. ATTAINMENT OF ARAR'S**

THIS OPERABLE UNIT WILL COMPLY WITH THE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS LISTED IN TABLE 1.

100 items

#### **#CE**

##### **XI. COST EFFECTIVENESS**

THIS ALTERNATIVE AFFORDS A HIGHER DEGREE OF OVERALL EFFECTIVENESS IN NOT ONLY PROTECTING THE PUBLIC AGAINST DIRECT EXPOSURE TO SURFACE SOILS BUT ALSO IN REMOVING THE THREAT OF SUDDEN RELEASE OF CONTAMINATED LIQUIDS. THE PRESENT WORTH OF THIS ALTERNATIVE RANGES FROM \$5 MILLION TO \$6 MILLION DOLLARS (ATTACHMENT 1. ACTION MEMORANDUM). THIS REMEDY IS A PROVEN TECHNOLOGY, AND IT IS A STRAIGHTFORWARD CLEANUP REMEDY WHICH CAN BE IMPLEMENTED YEAR ROUND.

THIS ALTERNATIVE USES TECHNOLOGIES THAT ARE PROVEN FOR ISOLATION (FENCING), REMEDIATION OF TANKED LIQUIDS AND SLUDGES (INCINERATION), REMEDIATION OF PROCESS BUILDINGS (DECONTAMINATION AND OFF-SITE DISPOSAL) AND FLOOD PROTECTION (EARTHEN DIKE CONSTRUCTION OR REINFORCEMENT). STABILIZATION OF THE SITE CONDITIONS THROUGH USE OF THE PROVEN TECHNOLOGIES WOULD ALLOW TIME TO DO THE TESTING NEEDED TO VALIDATE THE LESS PROVEN TECHNOLOGIES THAT MAY BE APPROPRIATE FOR THE FINAL REMEDY.

##### **XII. UTILIZATION OF PERMANENT SOLUTIONS AND ALTERNATIVE TREATMENT TECHNOLOGIES OR RESOURCES RECOVERY TECHNOLOGIES TO THE MAXIMUM EXTENT PRACTICABLE AND PREFERENCE FOR TREATMENT AS A PRINCIPAL ELEMENT**

US EPA BELIEVES THIS REMEDY IS THE MOST APPROPRIATE SOLUTION FOR INITIATING AN APPROPRIATE OPERABLE UNIT AT THE ACW SITE AND FOR PROVIDING THE BEST BALANCE AMONG THE EVALUATION CRITERIA FOR THE ALTERNATIVES EVALUATED. THIS REMEDY PROVIDES EFFECTIVE PROTECTION IN BOTH THE SHORT AND LONG-TERM TO POTENTIAL HUMAN AND ENVIRONMENTAL RECEPTORS, IS READILY IMPLEMENTED, IS COST EFFECTIVE AND IS CONSISTENT WITH FUTURE RESPONSE ACTIONS THAT MAY BE UNDERTAKEN AT THE SITE. THERMAL DESTRUCTION OF LIQUIDS AND SLUDGES REPRESENTS A PERMANENT REDUCTION (THROUGH TREATMENT) OF TOXICITY, MOBILITY AND VOLUME.

#RS

**RESPONSIVENESS SUMMARY**

**FINAL RESPONSIVENESS SUMMARY**

THE US ENVIRONMENTAL PROTECTION AGENCY (EPA) ESTABLISHED A PUBLIC COMMENT PERIOD FROM AUGUST 30, 1988 THROUGH SEPTEMBER 20, 1988 FOR INTERESTED PARTIES TO COMMENT ON EPA'S PROPOSED REMEDIAL ACTION PLAN (PRAP) FOR THE FIRST OPERABLE UNIT OF THE ACW SITE.

EPA HELD A PUBLIC HEARING ON AUGUST 20, 1988 IN JACKSON TO DESCRIBE THE REMEDIAL ALTERNATIVES DEVELOPED AND PRESENT EPA'S PREFERRED REMEDIAL ALTERNATIVE FOR THE ACW SITE.

A RESPONSIVENESS SUMMARY IS REQUIRED BY SUPERFUND POLICY FOR THE PURPOSE OF PROVIDING EPA AND THE PUBLIC WITH A SUMMARY OF CITIZEN COMMENTS AND CONCERNS ABOUT THE SITE, AS RAISED DURING THE PUBLIC COMMENT PERIOD, AND EPA'S RESPONSES TO THOSE CONCERNS. ALL OF THE COMMENTS SUMMARIZED IN THIS DOCUMENT HAVE BEEN FACTORED INTO EPA'S FINAL DECISION OF THE PREFERRED ALTERNATIVE FOR CLEANUP OF THE ACW SITE.

THIS RESPONSIVENESS SUMMARY FOR THE AMERICAN CREOSOTE WORKS SITE IS DIVIDED INTO THE FOLLOWING SECTIONS:

- I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS. THIS SECTION PROVIDES A BRIEF HISTORY OF COMMUNITY INTEREST AND CONCERNS REGARDING THE AMERICAN CREOSOTE WORKS SITE.
- II. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES. THIS SECTION PRESENTS BOTH ORAL AND WRITTEN COMMENTS SUBMITTED TO EPA DURING THE PUBLIC COMMENT PERIOD, AND PROVIDES EPA'S RESPONSES TO THESE COMMENTS.
- III. REMAINING CONCERNS. THIS SECTION DISCUSSES COMMUNITY CONCERNS THAT EPA SHOULD BE AWARE OF AS IT APPEARS TO DESIGN AND IMPLEMENT THE FIRST OPERABLE UNIT, AND PLAN THE NECESSARY STEPS TO ADDRESS THE SECOND OPERABLE UNIT FOR THE ACW SITE.
- IV. CORRESPONDENCE. THIS SECTION SERVES AS AN ATTACHMENT FOR CORRESPONDENCE RECEIVED AND RESPONDED TO DURING THE PUBLIC COMMENT PERIOD.

**I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERN**

THE JACKSON COMMUNITY HAS BEEN AWARE OF THE CONTAMINATION PROBLEM AT THE ACW SITE FOR SEVERAL YEARS. IN RESPONSE TO COMPLAINTS RECEIVED BETWEEN 1980 AND 1983, TDHE BEGAN INVESTIGATING THE SITE FOR SURFACE WATER AND GROUNDWATER CONTAMINATION. THEN IN JUNE 1983, THE US EPA REGION IV CONDUCTED THE FIRST OF TWO REMOVAL ACTIONS AT THE SITE TO STABILIZE THE CONTAMINATION AND PROTECT THE NEARBY RESIDENTS FROM ANY CONTAMINATION SPREADING OFF-SITE INTO POTABLE DRINKING WATER SUPPLIES. THE SECOND RESPONSE ACTION TOOK PLACE IN THE LATTER PART OF 1985 WHEN THE ON-SITE TANKS WHICH CONTAINED SLUDGES WERE REPAIRED TO PREVENT ANY LEAKING. BOTH OF THESE RESPONSES INCLUDED EPA INTERVIEWS WITH BOTH JACKSON OFFICIALS AND COMMUNITY RESIDENTS. BEFORE WITH THE PUBLIC HEARING ON AUGUST 29, 1988, EPA CONDUCTED A PUBLIC MEETING IN DECEMBER 1986 AT THE BEGINNING OF THE REMEDIAL INVESTIGATION OF ACW. AT BOTH OF THESE MEETINGS, THE KEY ISSUES AND CONCERNS IDENTIFIED WERE:

FINANCIAL CONCERNS - BOTH OFFICIALS AND MERCHANTS WERE CONCERNED WITH THE NEGATIVE IMPACT A SUPERFUND SITE WOULD HAVE ON LAND VALUE AND BUSINESS DEVELOPMENT IN THE AREA.

COORDINATION WITH LOCAL OFFICIALS - OFFICIALS EXPRESSED A DESIRE TO BE KEPT INFORMED ABOUT ACTIVITIES AND DEVELOPMENTS AT THE ACW SITE. HEALTH OFFICIALS WERE CONCERNED ABOUT THE POSSIBLE EFFECT OF THE GROUNDWATER CONTAMINATION ON THE NEARBY JACKSON WELL FIELD AND THE WASTEWATER TREATMENT LINES THAT RUN TANGENTIAL TO THE SOUTHWEST BOUNDARY OF THE SITE. OFFICIALS DID EXPRESS DISSATISFACTION WITH THE EPA'S EFFORT OF KEEPING THE JACKSON COMMUNITY WELL INFORMED OVER THE LAST THREE TO FOUR YEARS.

## **II. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC HEARING AND COMMENT PERIOD AND EPA RESPONSES**

AT THE PUBLIC HEARING, THE COMMUNITY RESIDENTS EXPRESSED CONCERN ABOUT THE EXTENSIVE SURFACE SOIL AND GROUNDWATER PROBLEM, THE WASTEWATER LINES RUNNING NEAR THE SITE, TIME FRAME TO CLEAN THE SITE COMPLETELY AND WAYS TO RESTRICT ACCESS TO THE SITE TO PREVENT PEOPLE FROM TRESPASSING ON THE SITE AND BEING EXPOSED TO HAZARDOUS WASTE.

ALSO EPA RECEIVED TWO LETTERS FROM KENNETH MARTIN WHO IS MANAGER OF THE WATER DEPARTMENT OF THE JACKSON UTILITY DIVISION. HIS AUGUST 23RD AND AUGUST 29TH LETTERS ARE ADDRESSED SPECIFICALLY AS PART OF THIS RESPONSIVENESS SUMMARY. THIS SECTION WILL BRIEFLY SUMMARIZE THE EPA RESPONSES TO BOTH (SEE SECTION IV BELOW) LETTERS AND THE CONCERNS AT THE PUBLIC HEARING COMMENTS:

CONCERNS, COMMENTS AND VIEWS OF THE JACKSON COMMUNITY WERE SIMILAR IN NATURE TO THOSE OF KENNETH MARTIN'S CORRESPONDENCE; IN FACT MR. MARTIN'S CONCERNS ELABORATED ON THE STATEMENTS AND VIEWS EXPRESSED AT THE HEARING. THERE WAS THE COMMENT THAT THE RI/FS STUDY PERFORMED FOR ACW DID NOT ADEQUATELY ADDRESS THE EXTENSIVE GROUNDWATER CONTAMINATION AT THE SITE, ITS EFFECTS ON THE JACKSON WELL FIELD AND THE NEED TO COLLECT MORE DATA ABOUT THE SUBSURFACE CONTAMINATION. THE EPA COMPLETELY AGREES WITH MR. MARTIN REGARDING THE INADEQUACY OF THE GROUNDWATER DATA ACCUMULATED THUS FAR AND THEREFORE THE EPA PLANS TO PERFORM ADDITIONAL INVESTIGATION OF THE GROUNDWATER CONDITION BELOW THE SITE, OFF-SITE, RE-EVALUATE THE DIRECTION OF THE GROUNDWATER GRADIENT AND ESTABLISH DEFINITIVE RESULTS REGARDING THE RELATIONSHIP BETWEEN THE ACW CONTAMINATED AQUIFER AND THAT OF JACKSON'S WELL FIELD.

WHEN THIS ADDITIONAL INVESTIGATION IS COMPLETED, THE EPA WILL ISSUE ANOTHER PROPOSED PLAN TO REMEDIATE THE GROUNDWATER AND WILL CONDUCT A PUBLIC HEARING REGARDING THIS PLAN. THE DAMAGE DONE TO THE AQUIFER BELOW THE ACW SITE IS SEVERE AND WILL REQUIRE A LONG TIME TO CLEAN UP. THE EPA WILL USE THE MOST PRACTICABLE TECHNOLOGY TO CLEAN UP THE AQUIFER AND AT THE SAME TIME PROTECT THE JACKSON WELL FIELD AQUIFER FROM BEING CONTAMINATED. ANOTHER MAJOR CONCERN WAS THE FORTY EIGHT INCH (48") SEWER INTERCEPTOR LINE RUNNING NEAR THE SITE, THIS LINE IS OFF-SITE AND DOES NOT RUN UNDER THE PROPERTY OF THE ACW SITE AS MR. MARTIN CONTENTS IN HIS CORRESPONDENCE. THESE LINES WERE PLACED NEAR THE SOUTHWEST BOUNDARY OF THE SITE AT APPROXIMATELY THE SAME TIME THE ACW COMPANY CEASED OPERATION. THE EPA WILL COORDINATE WITH MR. MARTIN'S STAFF WHEN PERFORMING FIELD WORK IN THAT PARTICULAR AREA. THE EPA DOES NOT HAVE AUTHORITY TO FINANCE REPAIR WORK FOR THE SEWER LINE SINCE EPA'S JURISDICTION ONLY EXTENDS TO THE CONTAMINATION DIRECTLY CAUSED BY THE ACW CONTAMINATION. FINALLY EPA RECOGNIZES THE DANGERS AND RISKS ASSOCIATED WITH EXPOSURE TO SURFACE SOIL CONTAMINATION AND IS PRESENTLY MAKING PLANS TO RELIEVE THIS THREAT TO ANY PEOPLE PASSING OR VENTURING ON THE SITE.

## **III. REMAINING CONCERNS**

EPA'S FIELD WORK DURING THE REMEDIAL DESIGN PHASE AND REMEDIAL ACTION PURSUANT TO THIS ROD WILL BE CONCERNED WITH CLEANING UP THE SURFACE SOIL CONTAMINANTS AND THE TANK PROCESS AREA. ADDITIONAL FIELD WORK AND FURTHER INVESTIGATION WILL BE IN CONFORMANCE WITH THIS ACTION AND COMPATIBLE WITH THE FINAL ROD IN FY89 THAT WILL ADDRESS THE GROUNDWATER CONTAMINATION.